

IN THE CLAIMS:

1. (Withdrawn) A computer apparatus comprising a peripheral device driver, said device driver being capable of being set into any one of a plurality of different configurations;

a device driver command module including a plurality of control commands for setting the device driver selectively into said different configurations;

means for storing a plurality of graphical elements for use in a graphical user selection interface;

means for selectively associating a graphical element of said plurality with one of said control commands; and

means for displaying on a display means, a graphical user selection interface comprising a subset of said plurality of stored graphical elements, and means for monitoring user selection of a graphical element associated by said associating means in response to which said corresponding control command is generated, thereby causing said device driver to be configured in accordance with said corresponding configuration.

2. (Withdrawn) Apparatus in accordance with claim 1 and operable to display at least one stored graphical element for user selection, wherein said associating means is operative to associate a graphical element, not associated with a corresponding control command, with one or more further graphical elements, such that said apparatus is

responsive to user selection of a displayed graphical element associated with one or more further graphical elements, to cause display in use of said one or more further graphical elements so as to be available for user selection.

3. (Withdrawn) Apparatus in accordance with claim 1, wherein said storage means is operable to store, in respect of a stored graphical element, two or more different graphical forms, said apparatus further including means for associating each stored graphical form with a respective one of said configurations, such that the graphical element is displayed, in use, in the form corresponding with the configuration of said device driver.

4. (Withdrawn) Apparatus in accordance with claim 1, wherein said device driver is operable to cause said apparatus to generate a peripheral configuration signal, said signal being operative to configure a peripheral in accordance with a user selection.

5. (Withdrawn) Apparatus in accordance with claim 4, wherein said device driver is operable in a first configuration to cause said apparatus to generate a first peripheral configuration signal operative to configure a peripheral printing device to operate in a monochrome printing mode, and is further operable in a second configuration to cause said apparatus to generate a second peripheral configuration signal operative to configure a peripheral printing device to operate in a colour printing mode.

6. (Withdrawn) Apparatus in accordance with claim 5, wherein said control means is operable to generate a colour option control command, for configuration of the device driver to change from the first configuration to the second configuration or from the second configuration to the first configuration, said colour option control command being associated, in use, by said associating means with a colour option graphical element having a first state indicating selection of the first configuration and a second state indicating selection of the second option, wherein said apparatus is operable to display the first state of said colour option graphical element when the device driver is configured in the first configuration, and in the second state when the device driver is configured in the second configuration.

7. (Withdrawn) Apparatus in accordance with claim 1, wherein the means for displaying a graphical user selection interface is operable to include, in said graphical user selection interface, a home graphical element associated with a predetermined group of graphical elements, said predetermined group of graphical elements being associated in use with a set of basic control commands, said home graphical element being selectable to cause display of said predetermined set of graphical elements.

8. (Withdrawn) Apparatus in accordance with claim 1, including graphical user selection interface usage storage means operable to store information defining groups of graphical elements successively displayed to a user, and including a forward graphical element and a backward graphical element, selection of said backward graphical element

being operable to cause retrieval of information from said usage storage means and display of a most recently viewed set of graphical elements instead of an existing set of graphical elements, and subsequent selection of said forward graphical element being operable to cause redisplay of said existing set of graphical elements.

9. (Withdrawn) Apparatus in accordance with claim 1, and further comprising means for generating a communication signal for communicating with a remote location, said interface configuration means being responsive to one of said control commands to cause said signal generating means to generate a signal for procuring a consumable product of a peripheral device with which the device driver is operative to communicate in use.

10. (Withdrawn) Apparatus in accordance with claim 9, wherein said device driver is responsive to a signal input from a peripheral representative of a depletion of a consumable to cause said signal generating means to generate said consumable procuring signal.

11. (Withdrawn) Apparatus in accordance with claim 9, wherein said associating means is operable to associate a graphical element with said one of said control commands such that user selection of a graphical element so associated is operable to cause generation of said consumable procuring signal.

12. (Withdrawn) A method of defining a peripheral device driver, including the steps of storing a plurality of graphical elements for display to a user, associating with each stored graphical element either a plurality of further ones of said stored graphical elements or one of a plurality of control commands, each control command in use being operable to configure said peripheral device driver in accordance with a corresponding one of a plurality of predetermined configurations, and displaying a subset of said plurality of graphical elements such that, on selection of a stored graphical element associated in said associating step, either an associated subset of graphical elements is displayed, or an associated control command is operated upon said interface.

13. (Withdrawn) A method in accordance with claim 12 and further including the step of storing, in respect of each stored graphical element, a plurality of graphical representations and associating each said representation with a respective one of said predetermined configurations, said step of displaying including the steps of referring to said configuration of said interface and displaying the corresponding representation of said element.

14. (Withdrawn) A method in accordance with claim 12 including the step of associating one of said graphical elements with one of said control commands, said control command being operable to cause generation of a communication signal for communicating an order for a consumable product for use with a peripheral.

15. (Withdrawn) A method in accordance with claim 14 including the steps of monitoring for user selection of said graphical element associated with said signal generating control command and, on user selection thereof, generating said signal.

16. (Withdrawn) A method in accordance with claim 14 and including the step of monitoring for receipt from a peripheral of a signal indicating depletion of a consumable by said peripheral and, on receipt of said signal, generating said communication signal.

17. (Original) A computer apparatus comprising a peripheral device driver, said device driver including means for controlling and configuring a peripheral device, and means for generating a signal for transmission to a third party, for ordering a supply of a consumable product for use with said peripheral device.

18. (Original) Apparatus in accordance with claim 17 wherein said device driver includes means for receiving a consumable depletion message from a peripheral, said signal generating means being responsive to receipt of a consumable depletion message by said receiving means.

19. (Original) A computer apparatus comprising a peripheral device driver, the driver including means for controlling and configuring a peripheral device, means for monitoring said peripheral device for depletion of a consumable product thereof; and

means for generating a document in response to depletion of a consumable product, said document being for use in ordering a supply of said consumable product.

20. (Withdrawn) A device driver for interfacing a computer to a peripheral, the device driver comprising:

a device driver engine for driving the peripheral, the device driver comprising:

means for defining a plurality of elements, each element having at least one state, each state having an associated image for display to a user for user selection and at least one of a pointer to one or more associated elements or a control command to be output to the device driver engine;

means for defining a plurality of pages, each page being associated with a state of an element and listing at least one of said one or more associated elements;

means for (i) receiving a user selection of a current state of a current element; (ii) reading the page associated with the current state of the current element; (iii) generating a display using the associated image of each element identified in the page list for the current state of the current element; and (iv) outputting the control command, if any, of the current state of the current element to the device driver engine.

21. (Withdrawn) A device driver according to claim 20, wherein said means for generating a display using the associated image of each element identified in the page list for the current state of the current element generates a display using the associated image for the current state of the each identified element.

22. (Withdrawn) A device driver according to claim 20 adapted for the driving of a printer.

23. (Withdrawn) A method of interfacing a computer to a peripheral, the method comprising the steps of:

providing an engine for driving the peripheral in accordance with control commands;

defining a plurality of elements, each element having at least one state, each state having an associated image for display to a user for user selection and at least one of a pointer to one or more associated elements or a control command to be output to the device driver engine;

defining a plurality of pages, each page being associated with a state of an element and listing at least one of said one or more associated elements; and

receiving a user selection of a current state of a current element;

reading the page associated with the current state of the current element;

generating a display using the associated image of each element identified in the page list for the current state of the current element;

outputting the control command, if any, of the current state of the current element to the device driver engine.



24. (Withdrawn) A method according to claim 23, wherein said step of generating a display using the associated image of each element identified in the page list for the current state of the current element generates a display using the associated image for the current state of the each identified element.

25. (Withdrawn) A method according to claim 23 adapted for the driving of a printer.

26. (Original) A printer driver for interfacing a computer to a specified printer, the printer driver comprising:

means for inputting a user command to order supplies associated with said specified printer; and

means for causing the computer to output a signal addressed to a supplier indicative of the user's desired supplies.

27. (Original) A printer driver according to claim 26, wherein said means for causing the computer to output a signal is adapted to output said signal to the Internet.

28. (Previously Presented) A printer driver according to claim 26 further comprising means for presenting the user with the options to order at least one of:

an ink cartridge specific to the specified printer or a process cartridge specific to the specified printer.

29. (Original) A method of generating signals for ordering printer specific supplies comprising the steps of:

providing a printer driver of the type used for interfacing a computer to a specified printer; inputting a user command to order supplies associated with said specified printer; and

causing the computer to output a signal addressed to a supplier indicative of the user's desired supplies.

30. (Original) A method according to claim 29 further comprising the step of presenting the user with the options of ordering at least one of an ink cartridge specific to the specified printer or a process cartridge specific to the specified printer prior to the input of the user command.

31. (Withdrawn) A method of inputting commands to a device driver, said device driver interfacing a computer with a peripheral, the method comprising the steps of:

providing a plurality of element definitions, said elements being interconnected in a hierarchical manner, each element having at least one state, each state defining a display image and at least one of a pointer to one or more associated elements or a control command to be passed to the device driver;

providing a plurality of page definitions, each of said pages being associated with a state of an element and each said page definition containing a list of elements;

reading the list of elements from the page definition of the presently selected page;  
displaying the display image corresponding to the present state of each of said elements on the list on a display device;

inputting a user selection of a displayed element; upon a first type of user selection, reading the page associated with the present state of the selected element and displaying the display image for the present state of each of said elements on the list of that page definition;

upon a second type of user selection (i) changing the state of the selected element, (ii) determining whether there is a page definition associated with the new state of the selected element and if so reading said page definition and displaying the display image for the present state of each of said elements on the list of that page definition; or if not displaying the present page with the display image of the selected element updated so as to correspond to the new state.

32. (Original) A printer driver for interfacing a computer to a printer, the driver comprising:

means for driving an Internet browser style user interface so as to cause the display of user definable printer parameters and so as to receive user definitions;

means for storing information specific to the printer to be driven;

means for receiving a purchase command from the user via said Internet browser style user interface; and means for outputting purchasing data to the Internet for ordering

the supply of a printer related item from an external supplier in dependence upon said received purchase command and said stored information.

33. (Original) A printer driver for interfacing a computer to a printer, the driver comprising:

means for displaying user definable printer parameters and for inputting commands from a user; means for storing information specific to the printer to be driven;

means for receiving a purchase command from the user via said input means; and

means for outputting purchasing data for ordering the supply of a printer related item from an external supplier in dependence upon said received purchase command and said stored information.

34. (Previously Presented) A printer driver according to claim 32, wherein said purchasing command relates to a printer consumable.

35. (Original) A printer driver according to claim 34, wherein the driver further comprises means for monitoring the current amount of the printer consumable and means for prompting the user to consider a purchase command upon the current amount of the printer consumable falling below a predetermined value.

36. (Original) A method of ordering printer specific consumables comprising the steps of:

providing a printer driver of the type used for interfacing a computer to a specified printer;

monitoring the current amount of at least one printer consumable; and

causing the computer to output a signal addressed to a supplier so as to order a replacement consumable upon the current amount of the consumable falling below a predetermined value.

37. (Original) A printer driver for interfacing a computer to a printer, comprising:

means for monitoring the current amount of at least one printer consumable; and

means for causing the computer to output a signal addressed to a supplier so as to order a replacement consumable upon the current amount of the consumable falling below a predetermined value.

38. (Original) A computer apparatus comprising a peripheral device interface means and communication means, the peripheral device interface means including signal receiving means for receiving a signal from a peripheral representative of depletion of a consumable of said peripheral device, and said peripheral device interface means being responsive to receipt of said signal to cause said communication means to transmit a message to a remote location for ordering of further supply of said consumable.

39. (Original) A computer apparatus comprising a peripheral device interface means for control of a peripheral device, and communication means, the peripheral device interface means including display means operative to display to a user a graphical element, said apparatus further including a user input device operative, in response to user selection of said graphical element, to generate an input signal, said peripheral device interface means being further operative in response to said input signal to cause said communication means to generate a message for transmission to a remote location for the ordering of a supply of a consumable of said peripheral device.

40. (Currently Amended) A computer apparatus including a driver in accordance with any one of claims ~~20 to 22~~, 26 to 28, 32 to 35 and 37.

41. (Currently Amended) A computer program product comprising processor executable instructions operable to cause a computer to become configured as apparatus in accordance with any one of claims ~~1 to 11~~, 17 to 19, 38 and 39, and ~~38 to 40~~.

42. (Currently Amended) A computer program product comprising processor executable instructions operable to cause a computer to become configured to operate in accordance with any one of claims ~~12 to 16~~, ~~23 to 25~~, ~~29 to 30~~ 31 and 36.

43. (Previously Presented) A computer readable storage medium storing a computer program product in accordance with claim 41.

44. (Previously Presented) A signal bearing computer readable information comprising a computer program product in accordance with claim 41.

45. (Previously Presented) A computer readable storage medium storing a computer program product in accordance with claim 42.

46. (Previously Presented) A signal bearing computer readable information comprising a computer program product in accordance with claim 42.

47. (New) A computer program product comprising processor executable instructions operable to cause a computer to become configured as apparatus in accordance with any one of claims 26 to 28, 32 to 35 and 37.

48. (New) A computer readable storage medium storing a computer program product in accordance with claim 47.

49. (New) A signal bearing computer readable information comprising a computer program product in accordance with claim 47.